

WHAT IS CLAIMED IS:

- 1 1. An IP telephony peripheral for use adjunct to a computer and for use with a
2 network, comprising:
3 a controller;
4 a computer interface communicatively coupled to said controller;
5 a memory coupled to said controller for selectively storing a destination IP
6 address;
7 a packetizer coupled to said controller and said memory for packetizing outbound
8 digitized voice into at least one outbound IP packet, said outbound IP packet including
9 destination data based on said stored destination IP address; and
10 a network interface in communication with said memory for broadcasting said
11 outbound IP packet onto said network.
- 1 2. The telephone of Claim 1, wherein said controller comprises a finite state
2 machine.
- 1 3. The telephone of Claim 2, wherein said controller comprises a programmed
2 microcontroller.
- 1 4. The telephone of Claim 2, wherein said controller comprises a synchronous
2 network of discrete logic components.
- 1 5. The telephone of Claim 2, wherein said finite state machine, said memory, said
2 packetizer, and said network interface are commonly housed in an ASIC.
- 1 6. The telephone of Claim 2, wherein said network interface captures an inbound IP
2 packet, said inbound IP packet including source data correlating to said destination IP
3 address.

1 7. The telephone of Claim 6, further comprising an extractor coupled to said
2 network interface and said controller for extracting inbound digitized voice from said
3 inbound IP packet.

1 8. The telephone of Claim 7, wherein said destination IP address includes plural IP
2 addresses.

1 9. The telephone of Claim 2, further comprising:
2 a handset interface, said handset interface including a speaker connector for
3 connecting a speaker and a microphone connector for connecting a microphone; and
4 an analog/digital converter coupled to said handset interface for converting
5 acquired voice into said outbound digitized voice and for converting inbound digitized
6 voice into analog form.

1 10. The telephone of Claim 9, further comprising a digital signal processor coupled to
2 said analog/digital converter, said controller, said packetizer, and said extractor for
3 selectively performing echo cancellation and compression operations on said inbound
4 and outbound digitized voice.

1 11. The telephone of Claim 9, further comprising:
2 a graphical user interface, said graphical user interface having a keypad
3 disposed on said graphical user interface; and
4 a keypad interface coupled to said controller, said keypad for detecting selection
5 of at least one key and for selectively issuing a corresponding DTMF tone to said
6 analog/digital converter.

1 12. The telephone of Claim 2, wherein said network interface comprises:
2 a transparent transport coupled to said network, said transport including
3 connection means for coupling a computer to said network and transporting computer
4 data to and from said computer;

5 a media access controller coupled to said transport, said media access controller
6 including collision enforcement means coupled to said transparent transport for
7 broadcasting said outbound IP packet onto said network without influencing said
8 computer data.

1 13. The telephone of Claim 1, wherein said communicative coupling of a computer
2 and said computer interface is through a radio communications link.

1 14. The telephone of Claim 13, wherein said radio communications link conforms to
2 Bluetooth specification.

1 15. The telephone of Claim 1, wherein said communicative coupling of a computer
2 and said computer interface is via a physical connector conforming to a Personal
3 Computer Memory Card International Association standard.

1 16. The telephone of Claim 1, wherein said communicative coupling of a computer
2 and said computer interface is via a physical connector conforming to a Peripheral
3 Component Interconnect standard.

1 17. The telephone of Claim 1, wherein said communicative coupling of a computer
2 and said computer interface is via a physical connector conforming to a Universal Serial
3 Bus standard.

1 18. An IP telephony system, comprising:
2 an IP telephony peripheral, comprising:
3 a controller;
4 a computer interface coupled to said controller;
5 a memory coupled to said controller;
6 a packetizer coupled to said controller and said memory for packetizing a
7 call request into an outbound IP packet; and
8 an interface for transmitting the outbound IP packet; and

9 a phone server in communication with said IP telephone, comprising:
10 an IP parser for parsing the call request from the transmitted outbound
11 packet;
12 a call model for resolving a destination IP address from the extracted call
13 request and transmitting the destination IP address to said IP telephone as an inbound
14 IP packet;
15 wherein said IP telephony peripheral further comprises an extractor coupled to
16 said controller, said memory, and said interface for extracting the destination IP address
17 from the inbound IP packet and storing the destination IP address into said memory.

1 19. The IP telephony system of Claim 18, wherein said packetizer packetizes
2 outbound digitized voice into a stream of outbound IP packets, each outbound IP packet
3 of the stream including destination data based on the stored destination IP address.

1 20. The telephony system of Claim 19, wherein said telephone controller comprises
2 a finite state machine.

1 21. An IP call establishment method, comprising the steps of:
2 receiving a call request from a graphical user interface on a computer;
3 packetizing the call request into an outbound IP packet;
4 transmitting the outbound IP packet;
5 remotely parsing the call request from the transmitted outbound packet;
6 remotely resolving a destination IP address from the extracted call request;
7 transmitting the destination IP address as an inbound IP packet;
8 extracting the destination IP address from the inbound IP packet; and
9 packetizing outbound digitized voice into a stream of outbound IP packets, each
10 outbound IP packet of the stream including destination data based on the stored
11 destination IP address.

1 22. The IP call establishment method of claim 20, further comprising the step of:
2 generating the call request responsive to user input on said graphical user
3 interface.

1 23. A packet voice communications system, comprising:
2 a packet voice telephone peripheral for use adjunct to a computer, operable to
3 receive a packet containing layer 4+ control information, encapsulate the layer 4+
4 control information into a lower level packet, and issue the lower level packet; and
5 a phone server coupled to said packet voice telephone and comprising:
6 an i/o module to receive the lower level packet; and
7 a layer 4+ processor to generate at least one response packet responsive
8 to the layer 4+ control information encapsulated within the received lower level
9 packet, wherein said i/o module issues the at least one response packet;
10 wherein the packet voice telephone receives the at least one response packet
11 and issues an outbound response containing a portion of the at least one response
12 packet.

1 24. A packet voice communications system, comprising:
2 a packet voice telephone peripheral comprising:
3 means for receiving a call request from a graphical user interface on a
4 computer;
5 means for receiving a packet containing layer 4+ control information;
6 means for encapsulating the layer 4+ control information into a lower level
7 packet; and
8 means for issuing the lower level packet; and
9 a phone server, comprising:
10 means for receiving the lower level packet; and
11 means for generating at least one response packet responsive to the layer
12 4+ control information encapsulated within the received lower level packet,
13 wherein said phone server receiving means includes issuing means for issuing
14 the at least one response packet;

15 wherein the packet voice telephone peripheral receiving means receives the at
16 least one response packet and includes issuing means for issuing an outbound
17 response containing a portion of the at least one response packet.

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1 25. An article including one or more machine-readable storage media containing
2 instructions to control an IP telephony peripheral apparatus in a communications
3 network, the instructions when executed causing a controller to:
4 transmit a call request to the IP telephony peripheral apparatus responsive to an
5 activation command on a computer;
6 wherein the call request comprises control information to selectively control the
7 operation of the IP telephony peripheral.